

## REMARKS

### *Status of the Claims*

Claims 24-43 are pending. Claims 1-23 from the parent application have been canceled, and new claims 24-43 have been added.

In the parent application, the Examiner gave the following statement of reasons for allowance (emphasis added):

None of the prior art discloses or suggests method for cleaning and maintaining a heat transfer system wherein minimum photon energy striking the surface is not less than  $430 \text{ mW/cm}^2$ , or method for cleaning and maintaining a heat transfer system wherein **germicial lamp at least intermittently irradiate the internal surface until the accumulated organic matter is substantially eliminated** or reducing pressure drop of a heat transfer system by emitting radiation at least intermittently germicial lamp or minimum photon energy striking the surface is  $430 \text{ mW/cm}^2$  or a heat transfer system having minimum photon energy striking the surface is not less than  $430 \text{ mW/cm}^2$ .

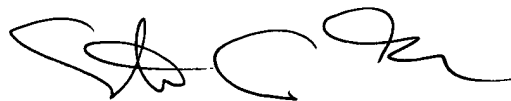
The application has provided terminal Disclaimer for prior patents (5,817,276), (6313,470), (6245,293), (6267,924) and (6,280,686) to obviate double patent rejections for these references.

In the parent application, a chart was supplied to the Examiner showing the relationship between the newly presented claims and previously allowed claims. The undersigned would be happy to provide a similar chart for the newly presented claims in this Application.

The Examiner is invited to call the undersigned attorney to answer any questions or to discuss steps necessary for placing the application in condition for allowance.

Respectfully submitted,

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**Addendum**  
**Marked-Up Versions of Specification and Abstract**  
**Showing Insertions and Deletions**

Please amend pages 12-13 of the specification as follows:

**~~SUMMARY OF THE INVENTION~~**

[0034]     ~~The previously described problems are solved in methods and apparatus of the invention wherein ultraviolet radiation is directed to the heat exchanger of an air handling system. The ultraviolet light kills, degrades and vaporizes the microorganisms and other organic material which naturally forms over time on a heat exchanger. As this matter is eliminated, the pressure drop is decreased (i.e., airflow is increased) and the heat exchange efficiency (capacity) is increased. In particular, there is no organic matter to impair heat transfer from a cooling or heating coil, and less energy is used by the HVAC system to move air as the restriction to airflow is reduced.~~

[0035]     ~~The invention has numerous benefits and advantages over the prior art. The primary benefit is that the invention can amount to significant energy savings in a cooling or heating system. UVC does not require lowering the cooling coil temperature or raising the heating temperature, thereby avoiding the consumption of a significant amount of energy. UVC does not require modifications to fan speed or motor horsepower, thereby further avoiding consumption of a significant amount of energy. Using standard life cycle analysis, UVC energy proves to be the least expensive method of cleaning an installed heat exchanger. UVC energy can also maximize the useful life of a heating exchanger rather than minimize it. UVC can return more coil surface and open area, heat, and thus transfer and airflow than any other method.~~

**[0036]** ~~Still further objects and advantages will be apparent to those skilled in the art from the following particular description.~~